

Set of Claims

Sub A1 → 1. A method for creating video programs, which is based on video shooting and forming computer images, wherein

5 an image is formed by a computer, which includes an image of objects in the foreground and a background image,

a participant of a video program is shot with a video camera and a corresponding video image is obtained,

10 an output video signal is formed with use of the video image of the participant of the video program and the image formed by the computer,

characterized in that

at least objects of the foreground of the image formed by the computer are displayed to the participant of the video program,

15 shooting the participant of the video program is carried out in the process of displaying at least objects of the foreground of the image formed by the computer to the participant of the video program with an angle of approach of the shooting providing the possibility of reproducing in the obtained video image the reaction of the participant of the video program to the displayed objects of the computer program,

20 the image formed by the computer is combined with the video image of the participant of the video program by superimposing an image of at least the objects of the foreground on the video image of the participant, and the combined image is used for subsequent display to a user.

2. A method according to claim 1, characterized in that

25 the shooting of the participant of the video program is carried out on a chromakey background, and when the image of the objects of the foreground, which are formed by the computer, is combined with the video image of the participant of the video program, the chromakey background is replaced with said background image or with any other image.

30 3. A method according to claim 1, characterized in that the participant of the video program is provided with the possibility of interacting with the displayed objects formed by the computer and of changing the image of said objects.

4. A method according to any one of claims 1-3, characterized in that at least the video image of a participant of a video program, which is shot by a video camera in a studio, and data necessary for forming an image with a computer are transmitted via a telecommunication network to a user device,

an image is formed in the user device on the basis of data received from the studio, this image including an image of the objects of the foreground and a background image,

the video image of the participant of the video program and the image formed by the user device are combined by superimposing the image of the objects of the foreground onto the video image of the participant,

the combined image is displayed to the user.

5. A method according to claim 1, characterized in that

control commands are input to the user device and the obtained control commands are used to form the image in the user device, the control commands are transmitted through the telecommunication network into the studio and the control commands received in the studio are used while forming an image with the computer.

6. A method according to claim 5, characterized in that

shooting a user is effected with a video camera,

a video image of the user is transmitted through a telecommunication network to the studio,

the video image of the user received in the studio is combined with objects of the foreground of the image formed by the computer in the studio by superimposing an image of said objects of the foreground on the video image of the user,

the combined image is displayed to a participant of the video program.

7. A method according to claim 6, characterized in that

the combined video image of the user and the objects of the foreground of the image formed by the computer is used for display to other users.

8. A system for creating video programs, combining shooting with a video camera and forming images with a computer, primarily television programs, the system comprising

a video camera for shooting a participant of a video program and

a means for forming an image including objects of the foreground and a background image,

the video camera and the means being disposed in a studio,

characterized in that it comprises

a means for displaying at least objects of the foreground to the participant, the means for displaying being connected to the means for forming an image, and

a means for combining images, a first input of which is connected to an output of the video camera, a second input to an output of the means for forming an image, wherein

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said means for combining images is made with the possibility of superimposing an image of objects of the foreground on a video image of the participant.

9. A system according to claim 8, characterized in that said means for displaying is made so that the image displayed to the participant intersects the line of shooting the participant with the video camera.

10. A system according to claim 9, characterized in that said means for displaying comprises

a screen, coupled to a means for forming images and disposed outside the limits of the field of view of the video camera,

a semitransparent mirror, optically conjugated with said screen and disposed on the line of shooting the participant with the video camera, at an angle to said line to provide the possibility of forming a reflected image to be displayed to the participant in a plane substantially perpendicular to the line of shooting.

11. A system according to any one of claims 8-10, characterized in that it comprises a means for interactive interaction of the participant with objects of the displayed image, the means being coupled to the means for forming an image.

12. A system according to claim 11, characterized in that said means for interactive interaction is made in the form of a means for determining the position and orientation of the participant.

13. A system according to any one of claims 8-12, characterized in that it comprises a channel of a telecommunication network,

a connection unit coupled by two-way communication to the channel of the telecommunication network, to the means for forming images and to the means for combining images,

at least one user device comprising

a user means for forming an image of the objects in the foreground and a background image,

a user connection unit coupled by two-way communication to the channel of the telecommunication network and to the user means for forming an image,

a user means for combining images of the foreground with a video image of a participant of a video program, sent over the channel of the telecommunication network, and made with the possibility of superimposing the image of the objects in the foreground on the video image of a participant of the video program, and a user means for displaying the combined image,

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wherein a first input of the user means for combining the images is connected to an output of the user connection unit, a second input is connected to an output of the means for forming images, and an output is connected to an input of the unit for displaying the combined image.

14. A system according to claim 13, characterized in that it additionally comprises a user control unit, an output of which is connected to a corresponding input of the user connection unit, and a user control command processing unit disposed in the studio and connected by two-way communication to the connection unit and to the means for forming an image.

15. A method for creating video programs in a video conference mode, based on video shooting and forming images with a computer, wherein

an image is formed by computers for each of at least two spatially separated participants of a video program, the image including an image of objects of the foreground and a background image, wherein said computers are linked through a telecommunication network,

at least the image of the foreground objects, formed by a computer, is displayed to each of the participants of the video program,

the possibility of interacting with the displayed objects and changing the displayed objects is provided to each of the participants of the video program,

shooting each of at least two participants of the video program is carried out with a video camera,

a video image of each participant is sent through the telecommunication network and displayed to the other participant,

characterized in that

the shooting of each participant of the video program is carried out in the process of the participant's interaction with at least the objects of the foreground of the image formed by a computer,

the image of the foreground objects which are displayed to a particular participant is combined for each of the participants with a received video image of another participant of the video program by superimposing said image of the foreground objects on said received video image of a participant of the video program and

a combined video image is displayed to each of the participants of the video program.

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16. A method according to claim 15, characterized in that the background, on which a participant of the video program is shot with a video camera, is cleaned from the received video image and replaced with a background image formed by a computer or with any other image.

17. A method for creating video programs for registering the reactions of a user to an image displayed to a user for studying and optimizing interfaces of computer programs and editing video films, wherein

an image is formed,

the formed image is displayed to the user,

the user is shot with a video camera and a corresponding video image is obtained,

an output video signal is formed with use of the video image of the user and the formed image for subsequent analysis,

characterized in that

the shooting of the user is carried out in the process of displaying the formed image to the user with an angle of approach of the shooting which provides the possibility of reproducing in the obtained video image a reaction of the user to the image displayed to the user,

transparent zones are created in the image being formed,

the formed image is combined with the video image of the user by superimposing the formed image with the transparent zones on the video image of the user.

18. A method according to claim 17, characterized in that the image is formed by a computer, wherein the image comprises an image of the objects and a background image, the background image being formed transparent when combined with the video image of the user.

19. A method according to claim 18, characterized in that the user is provided with the possibility of interacting with the objects of the displayed image formed by the computer.

20. A method according to any one of claims 17-19, characterized in that data of the psychophysiological condition of a user in the process of interaction with the displayed objects of the image formed by the computer are additionally registered.

21. A method according to claim 20, characterized in that the indications of the registered data are combined with the images of the video program.

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